

Date: Sun, 12 Dec 93 04:30:49 PST
From: Ham-Homebrew Mailing List and Newsgroup <ham-homebrew@ucsd.edu>
Errors-To: Ham-Homebrew-Errors@UCSD.Edu
Reply-To: Ham-Homebrew@UCSD.Edu
Precedence: Bulk
Subject: Ham-Homebrew Digest V93 #130
To: Ham-Homebrew

Ham-Homebrew Digest Sun, 12 Dec 93 Volume 93 : Issue 130

Today's Topics:

 Built in transmatch
Nation-specific radios (?) and Powering small speakers
SSTV via soundblaster available
Wanna build VLF rcvr. Info?

Send Replies or notes for publication to: <Ham-Homebrew@UCSD.Edu>
Send subscription requests to: <Ham-Homebrew-REQUEST@UCSD.Edu>
Problems you can't solve otherwise to brian@ucsd.edu.

Archives of past issues of the Ham-Homebrew Digest are available
(by FTP only) from UCSD.Edu in directory "mailarchives/ham-homebrew".

We trust that readers are intelligent enough to realize that all text
herein consists of personal comments and does not represent the official
policies or positions of any party. Your mileage may vary. So there.

Date: 11 Dec 93 15:29:56 GMT
From: ogicse!emory!kd4nc!ke4zv!gary@network.ucsd.edu
Subject: Built in transmatch
To: ham-homebrew@ucsd.edu

In article <2675@arrl.org> zlau@arrl.org (Zack Lau) writes:

>
>Has anyone figured how to design an RF output stage
>with a built in transmatch that can't be mistuned
>as a frequency multiplier?
>
>This seems to be a big drawback of most tube output
>networks--while they work fine as limited range
>transmatches how can you tell you have it tuned
>up in the proper band? It isn't always practical to
>have an appropriately located station listen to
>see which tuning settings are the right ones!
>
>Obviously, putting in a low pass filter between the

>matching network and the transmatch is one solution,
>but modern transceivers *already* do that.
>
>Anyone with a cheap and simple solution?

Normal practice is to *not* design tank circuits that can resonate across multiple octaves. That doesn't normally limit the range of impedances a network can match, but it does limit the types of networks that can be used.

In the case where a network can span octaves, the simple expedient is to always start tuning from the lowest resonant point and stop at the first dip in plate current. Of course operating the stage class AB1 will limit the harmonic energy considerably in any event.

Gary

--

Gary Coffman KE4ZV	I kill you,	gatech!wa4mei!ke4zv!gary
Destructive Testing Systems	You kill me,	uunet!rsiatl!ke4zv!gary
534 Shannon Way	We're the Manson Family	emory!kd4nc!ke4zv!gary
Lawrenceville, GA 30244	-sorry Barney	

Date: 12 Dec 93 02:58:47 GMT
From: netnews.upenn.edu!netnews.noc.drexel.edu!dunx1.ocs.drexel.edu!dunx1!
st92ba44@rutgers.rutgers.edu
Subject: Nation-specific radios (?) and Powering small speakers
To: ham-homebrew@ucsd.edu

hello all.

I was just wondering if someone out there might have the answer(s) to the following:

- 1) my grandfather bought a radio last year that was marketed to bring in a foreign channel (italian news/entertainment) 24 hours a day. He listens to it all the time so I assume that its working the way it should. Here's my problem, how does the radio (with only a 2 foot antenna) pick up the signals from italy 24 hours a day? What kind of radio is it?
- 2) also, (i have successfully finished my first radio!) and I was wondering if I couldn't get it to drive a small speaker. Its meant to power a set of low impedance phones. the book I have has the schematic for a simple amp but it recommends against using it with the radio I have built (crystal shortwave). Is there a way to boost the output so as to drive, say, a 2" speaker? Thanks.

antonio gatta
st92ba44@dunx1.ocs.drexel.edu

Date: Thu, 9 Dec 1993 20:52:45 GMT
From: pravda.sdsc.edu!usc!math.ohio-state.edu!magnus.acs.ohio-state.edu!csn!
col.hp.com!fc.hp.com!mckee@network.ucsd.edu
Subject: SSTV via soundblaster available
To: ham-homebrew@ucsd.edu

Greetings:

The purpose of this note is to announce the availability of Version 1.0 of my software SSTV package. It requires you to have connected your radio to your soundblaster in such a way that you can make successful recordings using the VEDIT program (VEDIT2 for SB pro) that came with your soundblaster. Depending upon how you do it, you might need to build a resistor divider to get the levels right. I assume you can (and have) done this.

My program SHOULD talk to your SB directly, but for various reasons I have not tested this. But I have used audio recorded with VEDIT2 to successfully display SSTV pictures.

The program is available from
hpcsos.col.hp.com (15.255.240.16)
as
misc/hamradio/sstv.lzh

73 and good luck,

Bret mckee@fc.hp.com
N0MTA

Here is the README:

This is the readme for N0MTA SSTV system. It is an ALL SOFTWARE SSTV solution for Hams with a PC and Soundblaster card. I have used it on a 25 MHZ 80386-SX and it will process images in real time (with no filtering).

The software is distributed as shareware. Despite some trends to the contrary, I have chosen to disable some of the more advanced functionality in the shareware version. If you do not approve, don't use it. I will make a reasonable attempt to provide support for

registered users, but I do have a day job...

The software supports the following SSTV formats:

Robot

- 8/12 second
- 12/24 second
- 24/36 second
- 36/72 second

ATV

- 24 second
- 90 second
- 94 second
- 188 second

It currently does not support any of the Scotty formats, and does not do WEFAX. The design would make it fairly straightforward to do so, but I have not. If enough registered users ask for these features, I'll add them.

The options the shareware version allows are (from sstv -?):

NOMTA Slow Scan TeleVision Software Version 1.0

Shareware version

(c) Copyright 1992 and 1993 by Bret McKee.

All Rights Reserved

usage ./sstv.exe: <options> <filename>

- N No screen output (for timing)
- S <Smooth size (for PLL)>
- a <frequency adjust (for PLL)>
- c <max colors>
- d dither
- h <highest frequency (for PLL)>
- i <frequency increment (for PLL)>
- l <lowest frequency (for PLL)>
- n no sync
- v verbose output

The shareware version is B&W only, and the digital filtering options are disabled.

Supported video cards are EGA, VGA, SVGA. For EGA, use of dithering (the -d option) is highly recommended. For SVGA, the program does not use more than 256 color, and uses the highest resolution the system will give it.

The software SHOULD talk to a soundblaster directly, but for a variety of reasons (I moved and my station is not entirely reassembled yet) I have not tested it. To try and have it talk to the SB, invoke it with "SB:" as the argument (i.e. sstv SB:).

I have tested it using .VOC files created using the utilities supplied with the Soundblaster card (VEDIT2). The software requires the file to be recorded as 8000 HZ MONO. When you have recorded the file, exit VEDIT2, and invoke the program with the file you recorded as the argument (i.e. sstv <file>.voc).

There are two registration options, which I refer to as the experimenter and the operator registrations.

The experimenter registration is \$25, and I send you a disk with the SOURCE CODE to the current version. It is written in C, and I have used MicroSoft C version 7.0 and 8.0 to compile it. I compiled it once a while ago with Borland C, and while it didn't "just work", it was not rocket science to get it working. The source includes the routines to decode the pictures, routines to do filtering with FFTs, and routines to talk to a Soundblaster, plus all additional routines. Note that you MUST have a compiler to use this option, since I do not include an EXECUTABLE with it.

Here are the restrictions on the source provided with the experimenter version:

```

/*****
 * This source module is part of NOMTA's all software SSTV package.
 * All the modules in this package are covered by this copyright notice.
 * By using this software you agree to be bound by the conditions of this
 * notice.
 *
 * This software is copyright 1993 by Bret Mckee. All rights are reserved
 * by the author, except:
 *
 * Modified versions of the source code may be distributed for NO
 * FEE whatsoever provided that this notice remains intact
 * AND the author of the modifications adds no additional
 * restrictions.
 *
 * Note that the author has retained ALL RIGHTS TO DISTRIBUTE OBJECT FILES
 * (with or without charge).
 *
 * The intention is to allow persons interested in modifying the source to be
 * able to easily do so, and to be able to freely share their modifications
 * with other such people, while reserving for the original author any
 * profits from those who simply wish to have an inexpensive SSTV station.
```

*
* Feel free to contact the author regarding this software.
*
*****/

The operator registration is \$30, and I send you a disk with the latest version of the EXECUTABLE program, including color and the digital filtering.

Send registrations to
Bret McKee
1712 Ridgewood Road
Fort Collins, CO 80526-1520

Comments/Questions may be sent to the above address, or may be sent electronically to either:

mckee@fc.hp.com (internet)

72223,2702 (CI\$)

Date: Fri, 10 Dec 93 18:20:28 GMT
From: unogate!news.service.uci.edu!usc!howland.reston.ans.net!
sol.ctr.columbia.edu!news.kei.com!yeshua.marcam.com!zip.eecs.umich.edu!umn.edu!
lynx.unm.edu!Mr-Hyde.aoc.nrao.edu!@mvb.saic.com
Subject: Wanna build VLF rcvr. Info?
To: ham-homebrew@ucsd.edu

Does anyone know the whereabouts of information for building a VLF receiver (500 kHz and below?). Either a kit or 100% homebrew?

Thanks,
Paul Harden, NA5N
pharden@nrao.zia.edu

End of Ham-Homebrew Digest V93 #130

